


Michael H. Barnes

 [linkedin.com/in/michael-h-barnes](https://www.linkedin.com/in/michael-h-barnes)

Objective

Fourth-Year Computer Engineering major at Oregon State University with a generalist skill set and strong communication skills. Strong background in quality assurance, software validation, and teaching computer science. My experience with teaching allows me to break down a problem and explain it to relevant parties quickly and easily.

Education

- **Oregon State University** Corvallis, OR
B.S. Electrical Engineering *Expected Dec. 2022*
 - Relevant courses: Computer Organization and Assembly, Data Structures, Digital Logic Design, VLSI System Design

Experience

- **Mentor Graphics** Wilsonville, OR
Calibre RET QA Intern *Mar. 2020 - Sep. 2020*
 - Developed multiple tools and scripts to organize files to assist the Calibre QA Team.
 - Built a Python and JavaScript program to analyze and graph the effect of priority on runtime in test cases.
 - Maintained daily progress updates to maintain communication during quarantine.
- **iD Tech Camps** Sacramento, CA
Lead Instructor *Jun. 2019 - Aug. 2019*
 - Prepared lesson plans and starter code in C++ and Python to teach computer science basics to 7-17 year-old students.
 - Ensured all students produced a project which combined personal interests and programming skills learned.
 - Applied behavior management techniques to enforce rules and safety regulations.
- **OSU ResiStore** Corvallis, OR
Volunteer Customer Service Technician *Apr. 2019 - Mar. 2020*
 - Managed transactions and assisted customers with finding the components they required.
 - Organized electrical components and materials.

Projects

- **Vibeduino Box** Corvallis, OR
Arduino Music Box *Nov. 2019 - Mar. 2020*

- Arduino DUE music box capable of playing back harmonic tones of recorded audio as well as read .WAV files from an SD card.
- Responsible for the LCD processing, file management, and audio processing aspects of this project.

- **Christmas Village Light Display**

Corvallis, OR

Bluetooth Low Energy (BLE) Light System

Sep. 2020 - Present

- Energy-efficient BLE light system that uses the nRF52840 SoC to control up to 30 light fixtures.
- Responsible for the light fixture code, central box code, and music processing blocks of this project.

Skills

Programming Languages: Python, C++, C, JavaScript, \LaTeX , AVR Assembly, Tcl

Operating Systems: Linux (Ubuntu, Red Hat), macOS, Windows 10

Applications: EAGLE, Fusion 360, LTSpice, Wireshark, MatLab, Adobe Photoshop, Adobe Lightroom

Lab Skills: Digital/Analog Oscilloscopes, Spectrum Analyzer, Function Generators, SMT Soldering

Extracurricular Activities

- **Audio Engineering Club**

Corvallis, OR

Member

May 2019 - Mar. 2020

- **Key Club**

Yuba City, CA

Lieutenant Governor

Sep. 2014 - Jun. 2017